

<b>NWS FORM E-5</b> (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) <b>WFO Jackson, Mississippi</b>
<b>MONTHLY REPORT OF HYDROLOGIC CONDITIONS</b>		REPORT FOR: MONTH      YEAR <b>June              2012</b>
TO:      Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE <b>Alan E. Gerard, Meteorologist In-Charge</b>  DATE <b>07/12/2012</b>

*When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)*

☒ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

### Synopsis...

June was a month of extremes. The first half to three weeks of the month had scattered showers and high temperatures in the 80s to low 90s while the last week was bone dry and blazing hot with high temperatures in the upper 90s and low 100s. Overall, temperature trends showed above normal monthly temperatures from 1.0 to 2.0 degrees across southern portions of the Hydrologic Service Area (HSA), while near normal to slightly above normal temperatures were recorded across the central portions of the HSA. Northern portions of the HSA actually had normal to below normal temperatures ranging from 0.0 to 1.0 degree below normal. Overall, the month was dry. Most areas received only 10 to 75 percent of normal rainfall; however, some areas actually had above normal rainfall. The Yazoo Delta Region actually had rainfall range from near normal to 175 percent of normal while Central and East Central sections of Mississippi had 75 to 135 percent of normal.

The month began with a cold front pushing through Southeast Mississippi. Rainfall, ranging from 0.25 to 1.50 inches, was scattered across the HSA. Central and East Mississippi had widespread, moderate to heavy rainfall ranging from 0.50 to 3.00 inches. Slightly cooler and drier air moved into the HSA on the 2<sup>nd</sup> and 3<sup>rd</sup>.

Much more humid conditions returned to the HSA on the 4<sup>th</sup>. A frontal system across Northeast Mississippi helped to kick off some light showers across Lowndes and Clay Counties during the morning hours. Some fairly significant thunderstorms propagated southeastward in the upper-level northwest flow and moved across the Yazoo Delta and portions of Central Mississippi during the late afternoon and evening. Some heavy rainfall from 1.00 to 3.00 inches and damaging winds were reported across the Yazoo Delta. By the 5<sup>th</sup>, the surface frontal system across North Mississippi began sinking southward into Southeast Mississippi. The front stalled along the Mississippi Coast by the morning of the 6<sup>th</sup>. Only isolated to scattered showers, from 0.25 to 2.00 inches, fell across the area. High pressure dominated most of the HSA with no rainfall on the 6<sup>th</sup> and 7<sup>th</sup>. Showers and thunderstorms pushed into extreme southern portions of the HSA on the 8<sup>th</sup> and 9<sup>th</sup>.

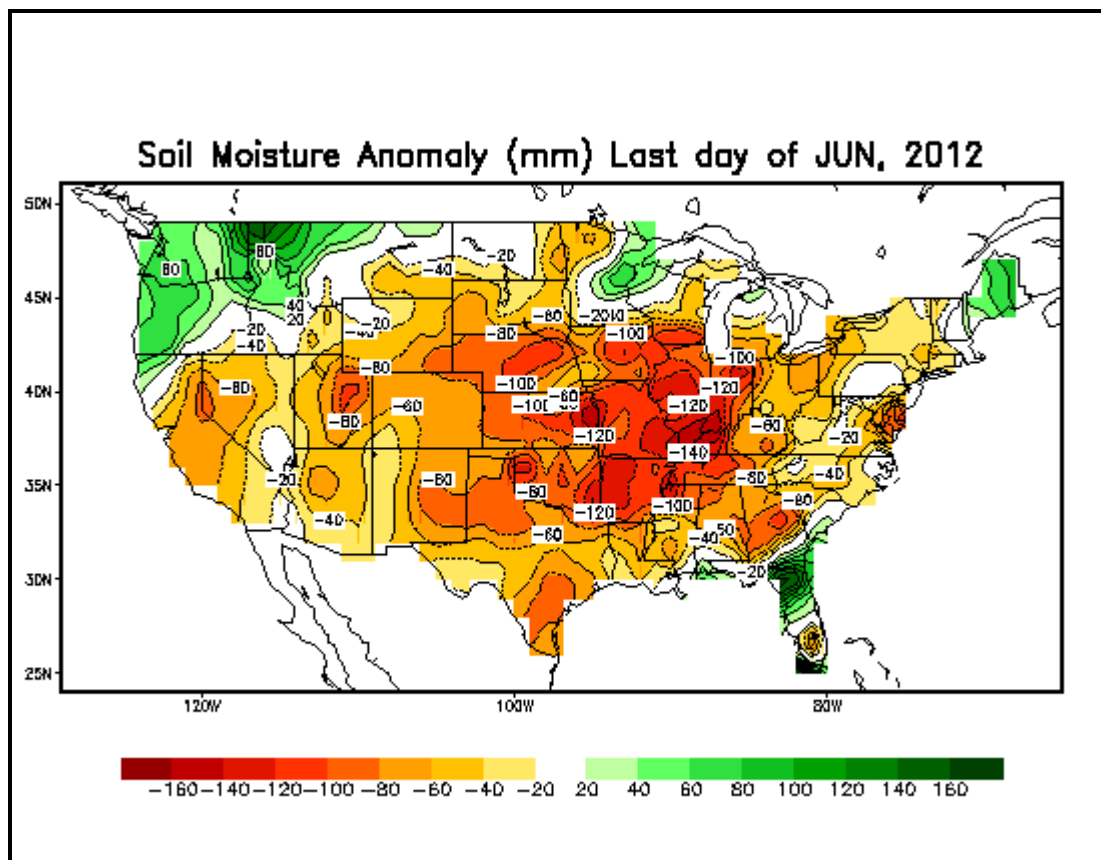
An upper level disturbance moved across the HSA from the 10<sup>th</sup> into the 11<sup>th</sup>. Scattered showers popped up across areas northwest of the Natchez Trace Parkway while widespread rainfall, ranging from 0.50 to 2.00 inches, fell across areas southeast of the Trace. The heaviest rainfall fell across Southeast Mississippi. Heavier thunderstorms and rainfall from 5.00 to in excess of 10.00 inches fell along Coastal Mississippi, Alabama, and the Florida Panhandle.

A Mesoscale Convective System (MCS) pushed into the HSA from the northwest during the late afternoon and evening hours on the 11<sup>th</sup>. Heavy rainfall and damaging winds were reported across most of the HSA. Rainfall in the Yazoo Delta ranged from 1.00 to 4.50 inches. Rainfall across the remainder of the area ranged from less than 0.25 to 3.00 inches. Another cold front slowly tracked across the region from the 12<sup>th</sup> until the morning of the 14<sup>th</sup>. Rainfall from 0.25 to 1.00 inch fell across Northeast Louisiana, Southeast Arkansas, and the Yazoo Delta, while only a few light showers fell across Southeast Mississippi. A weak boundary moved westward across the HSA on the 16<sup>th</sup> kicking off scattered showers. High pressure built into the HSA through the 17<sup>th</sup>.

As high pressure shifted eastward on the 18<sup>th</sup> and 19<sup>th</sup>, hot and humid conditions returned. High pressure remained in control of the weather both aloft and at the surface through the 21<sup>st</sup>. Only a few light showers occurred during the period. A weak frontal system pushed across the area from the 22<sup>nd</sup> to the 23<sup>rd</sup> producing a few isolated showers. The frontal system brought drier air into the HSA. An upper level ridge moved into the area from the west allowing temperatures to soar in the middle to upper 90s. Tropical Storm Debby formed in the southern Gulf of Mexico and moved toward the Big Bend Region of Florida by the morning of the 26<sup>th</sup>. Flow around Debby helped to steer another surface front across the region. This front brought even hotter and drier conditions. Surface and upper level high pressure continued to control the weather through the end of the month. No rainfall was reported during this period. Temperatures soared into the upper 90s with some areas reaching from 100 to 103 degrees.

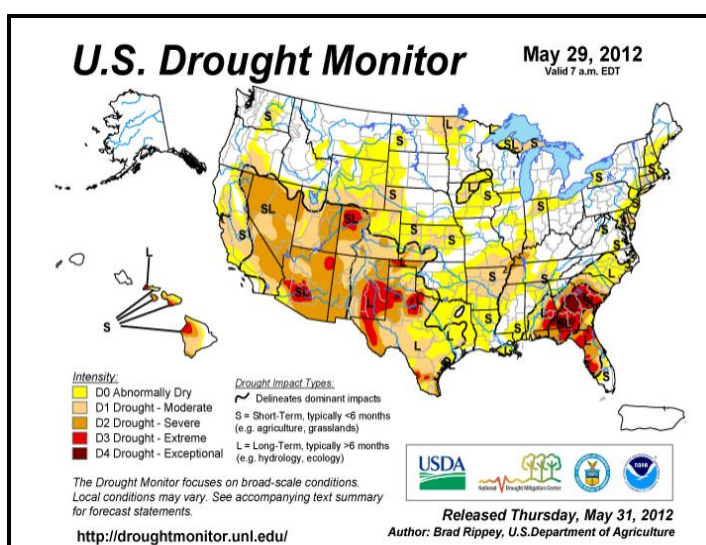
## River and Soil Conditions...

### Soil Moisture:

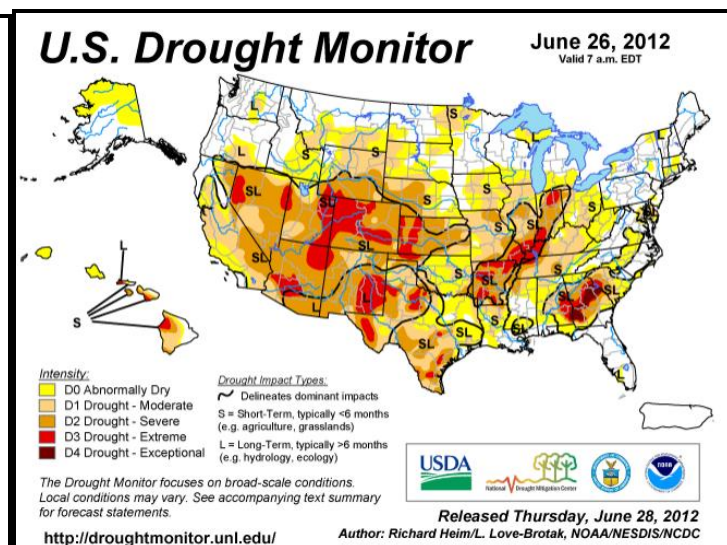


June 2012

### Drought Comparison to prior month:



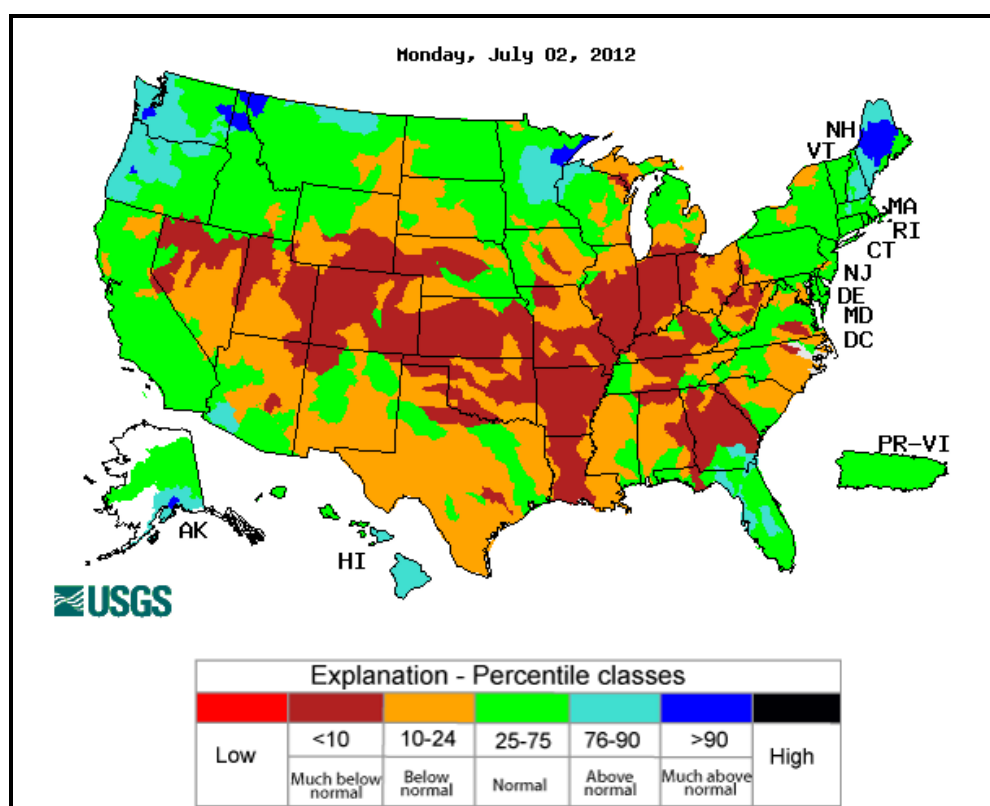
May 29<sup>th</sup>, 2012



June 26<sup>th</sup>, 2012

## Streamflow:

The United States Geological Survey's (USGS) June 2012 (actually 28 day ending July 2<sup>nd</sup> this month) river streamflow records were compared with all historical June streamflow records. Streamflow was below normal over all but portions of Pascagoula River System in East and Southeast Mississippi.



28 day average Streamflow ending July 2nd

No river flooding was reported during the month. Minor rises occurred along the Big Black, Upper Pearl, and the Big Sunflower Rivers. Little change in river stage occurred along all other river systems.

Temperatures are expected to remain above normal while chances are above normal for rainfall in the 1 to 3 month time period across much of the HSA (above normal chances are based on climatologically increases in rain due to past development of tropical systems during the time period) and even chances for above, normal, or below normal rainfall in northern sections of the HSA. Based on current soil moisture, streamflow, and 1 to 3 month weather outlooks, flood potentials are as follows:

<i>Pearl River System:</i>	Below average.
<i>Yazoo River System:</i>	Below average.
<i>Big Black River System:</i>	Below average.
<i>Homochitto River System:</i>	Below average.
<i>Pascagoula River System:</i>	Below average.
<i>Northeast LA and Southeast AR:</i>	Below average.
<i>Tombigbee River System:</i>	Below average.
<i>Mississippi River:</i>	Below average.

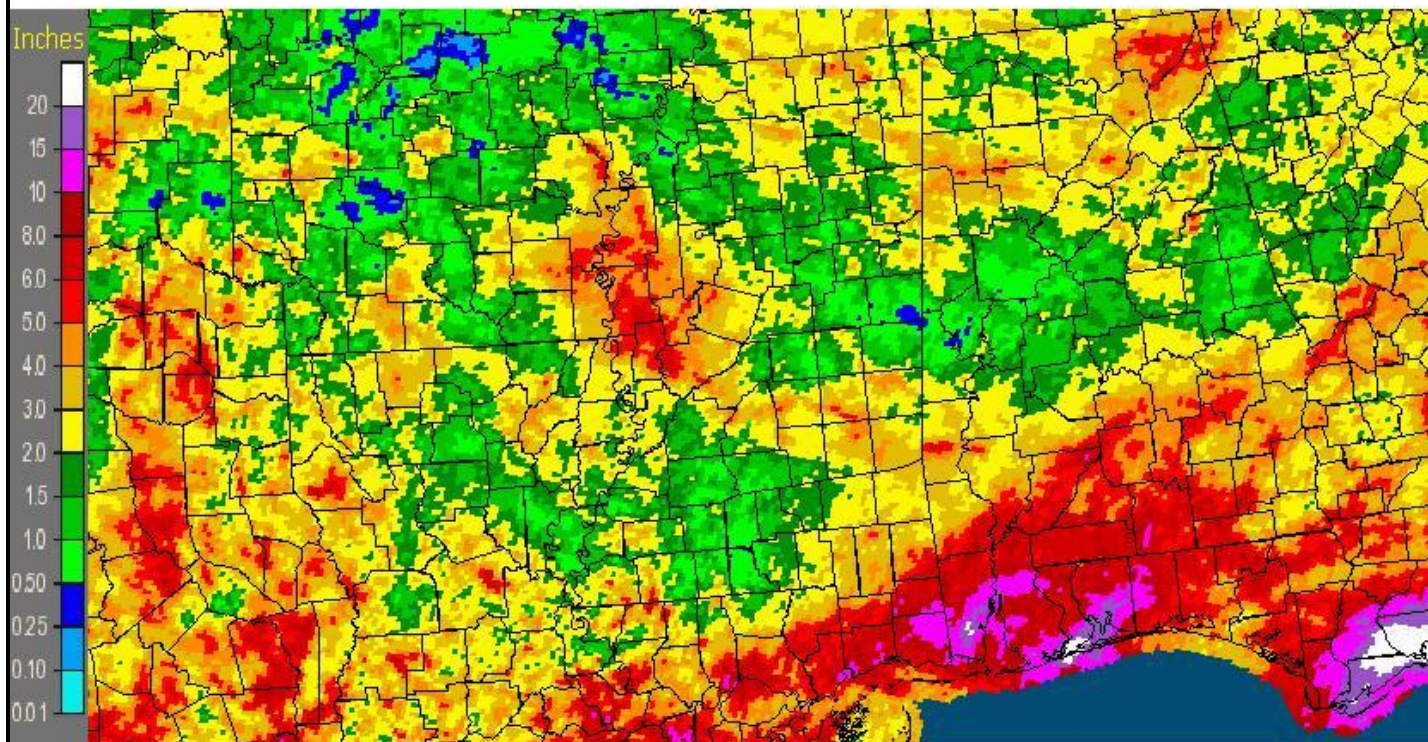
#### **Rainfall for the month of June:**

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on May 31st until 7 am on June 30th were: 8.94 inches Forest, MS; 7.33 inches at Cleveland, MS; 6.83 inches at Belzoni, MS; and 6.10 inches near Brandon, MS;

Some lesser monthly totals: 1.16 inches near Jonesville, LA; 1.31 inches at Monticello, MS; 1.34 inches at Louisville, MS; 1.51 inches at Prentiss, MS; 1.54 inches at D'Lo, MS; 1.53 inches at Crawford, MS; 1.70 inches at Bastrop, LA; 1.76 inches at Hazelhurst, MS and Red River Lock and Dam 1, LA; 1.77 inches at Crystal Springs, MS; 1.95 inches at Crossette, AR; and 1.99 inches at Grenada Dam, MS;

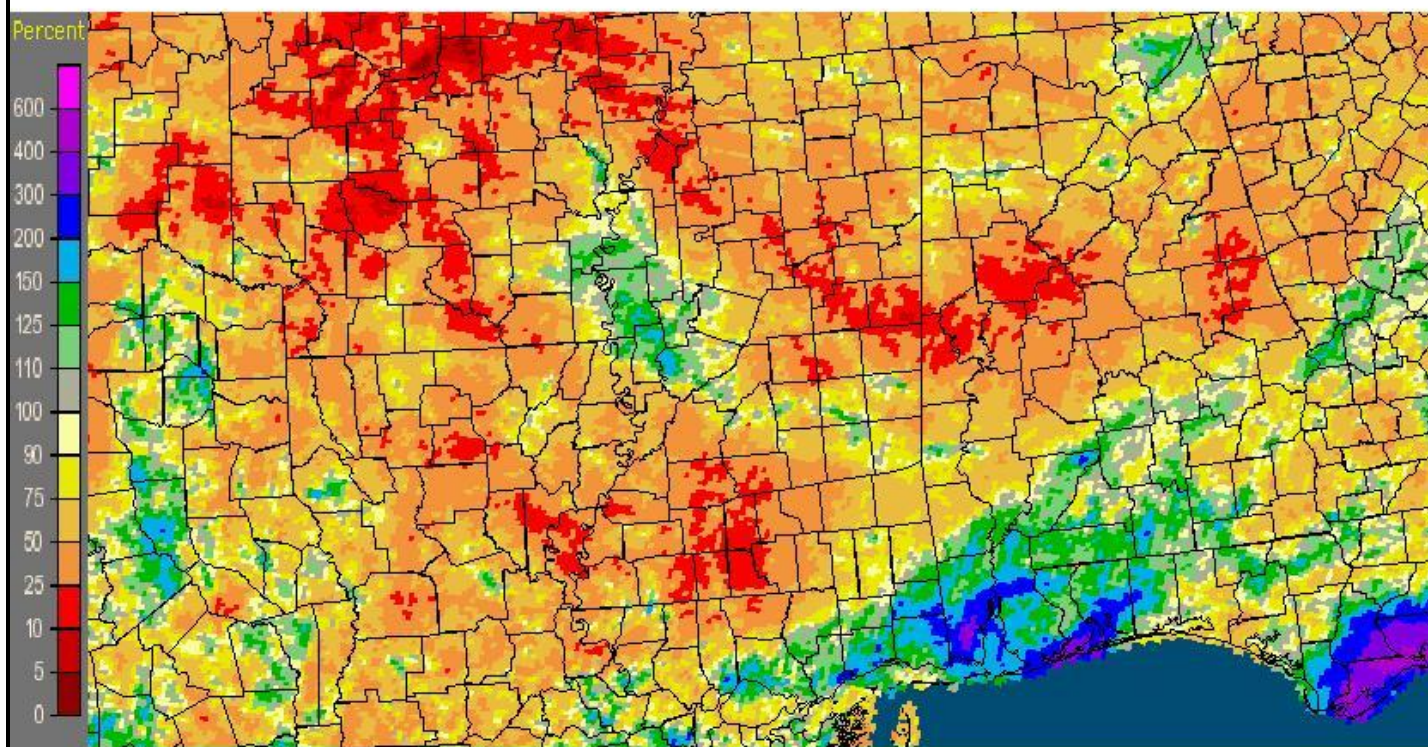


Mississippi: June, 2012 Monthly Observed Precipitation  
Valid at 7/1/2012 1200 UTC- Created 7/3/12 13:37 UTC



June 2012 Rainfall Estimates

Mississippi: June, 2012 Monthly Percent of Normal Precipitation  
Valid at 7/1/2012 1200 UTC- Created 7/3/12 13:41 UTC



June 2012 Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.



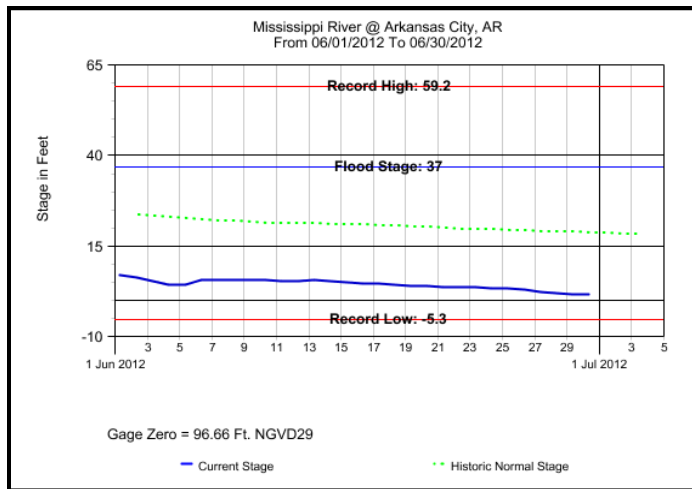
## June rainfall for Selected Cities...

City (Airport)	June Rainfall	Departure from normal	2012 Rainfall	2012 Departure from Normal
Jackson, MS	5.34	+1.22	35.96	+7.73
Meridian, MS	2.25	-2.15	30.80	+0.97
Greenwood, MS	1.85	-2.46	18.64	-9.00
Greenville, MS	4.81	+0.77	20.60	-7.70
Hattiesburg, MS	3.34	-2.16	30.48	-1.56
Vicksburg, MS	2.21	-1.78	28.46	-0.83

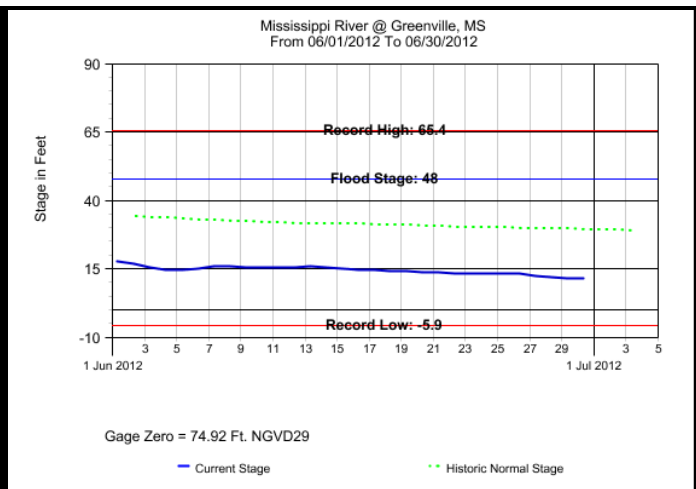
## Mississippi River...

### Mississippi River Plots for June, 2012

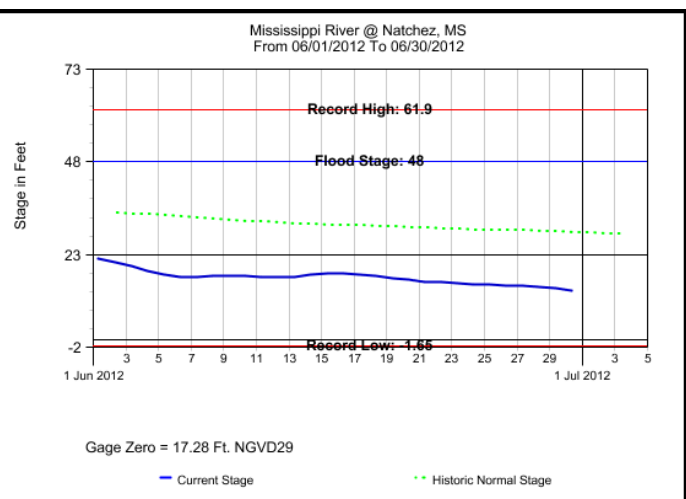
Plots Courtesy of the United States Army Corps of Engineers



**ARKANSAS CITY, MS**



**GREENVILLE, MS**



**NATCHEZ, MS**

Preliminary high and low stages for the month:

Location	FS	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City, AR	37	7.39	06/01/12	1.50	06/30/12
Greenville, MS	48	18.12	06/30/12	11.41	06/30/12
Vicksburg, MS	43	13.88	06/01/12	4.84	06/30/12
Natchez, MS	48	22.32	06/01/12	13.03	06/30/12

Total Flood Warning products issued: 0  
Total Flood Statement products issued: 0  
Total Flood Advisories MS River : 0  
Daily Climate and Ag WX Products (AGO'S) issued: 30  
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30  
Daily River and Lake Summary Products (RVD'S) issued: 30

**Marty V. Pope**

Service Hydrologist &  
Latrice Maxie

Assistant Hydrologist/Observing Program Leader (OPL)

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.



cc: USGS Little Rock District  
USGS Ruston District  
USACE Mobile District  
USACE Vicksburg District  
USACE Mississippi Valley Division  
USGS Mississippi District  
SRH Climate, Weather and Water Division  
Lower Mississippi River Forecast Center  
Pearl River Valley Water Supply District  
Hydrologic Information Center  
Southern Region Climate Center  
Pat Harrison Waterway District  
Pearl River Basin Development District